



STATE OF WASHINGTON
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Proposed Final Report

State Board of Health Priority: Environmental Health

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Executive Summary

Washington residents and visitors rely on the public health system to prevent public health threats. Local, state, and tribal health agencies are primarily responsible for promoting health and preventing disease, injury, and disability for people within their jurisdictions. Other agencies, businesses, organizations, and residents are also a vital part of Washington's public health system.

There is no shortage of public health threats. Public health funding and capacity to respond to emerging and ongoing threats is limited, however. Data on environmental health exposures and health risks are also limited. Agency and public priorities, expert opinions and public perceptions don't always agree. Environmental health issues can become contentious and divisive, especially when there is uncertainty about health risks, values are threatened, concerns are not addressed, and lack of trust develops.

The Washington State Board of Health (SBOH) is responsible for public health rule making, policy development and public engagement. It often bases decisions on information from other agency staffs and community members. Does information that policy makers receive include the priorities and values of diverse communities throughout the state?

To answer this question, the SBOH Environmental Health Committee staffer interviewed local, state, and tribal environmental health and health assessment staffs. The Committee staffer also interviewed community members and additional agency staffs who had worked on community environmental health assessments and on environmental health issues. The Committee staffer asked how they determine environmental health priorities and involve community members in their work. She also asked for recommendations on how to improve priority setting and community involvement processes, including community environmental health assessments.

The Committee found that agency involvement of community members tends to be limited to specific stakeholders and issues. Laws, regulations, funding, public outcry, and political pressures primarily determine priorities. A lot of time is spent responding to crises. Many agency staffers and community members interviewed would prefer more systematic and data-driven priority setting processes. Many agency staffers and community members want to increase their and others' understanding of environmental health problems and solutions. Agency and community capacity for these activities is limited, however.

Local community health assessments rarely include environmental factors that impact health, because of the lack of environmental health indicators and limited collaboration between health department programs. Many expressed the need for improved communication and collaboration between agencies and with community members. Ongoing exchange of information, values, and concerns enables agency and community members to better work together to address environmental health issues. The Committee identified two Washington community environmental health assessments as best practices because they included:

- ❖ A focus on environmental health indicators or issues.
- ❖ Assessment of community values, perceptions, and concerns.

- ❖ Meaningful involvement of a broad range of community members and organizations.

The Committee brought together a group of local and state agency, non-governmental, and university people interested in community environmental health assessment. The group developed recommendations to improve environmental health and community involvement in community health assessment practices. The Committee used these recommendations, along with information from the group interviews and additional discussions, to develop the final report recommendations below.

SBOH Environmental Health Committee Recommendations to Improve Community Environmental Health Assessment Practice

The Committee recommends eight ways the Washington State Board of Health, Department of Health, Department of Ecology, local health jurisdictions, and their partners can improve community environmental health assessment practice:

1. Support funding of community environmental health assessment processes. For example, explicitly add community mobilization and qualitative data collection into the Public Health Improvement Plan's cost model for essential public health services.
2. Develop capacity to perform community environmental health assessment, including components such as:
 - Collecting qualitative and quantitative data on environmental factors that impact health;
 - Identifying community values, perspectives, and concerns;
 - Providing culturally and linguistically appropriate environmental education; and
 - Involving and mobilizing community members and organizations.
3. Develop agency and community capacity to address needs identified by community environmental health assessments and action plans.
4. Develop a menu of accessible, relevant, and community driven environmental health indicators, which include a broad spectrum of environmental factors that impact human health.
5. Incorporate environmental factors that impact affect health into existing community health assessment processes and surveys such as the Behavioral Risk Factor Surveillance System Survey.
6. Identify relevant data, tools, expertise, and assistance available for community environmental health assessment processes. Provide information on community environmental health assessment tools, methods, mentors, and best practices through the Assessment in Action AssessNow Web site and other communication channels.
7. Encourage training of agency staffs and community partners in community health assessment processes that integrate environmental health with other public health programs.
8. Request that agency staffs and community members provide feedback on environmental health data and concerns identified by community environmental health assessments to boards of health and other policy makers.

Introduction

Washington residents and visitors rely on the public health system to prevent public health threats. There is no shortage of public health threats, old and new. Every day there are articles in the popular and scientific media about public health concerns such as safe drinking water, school indoor air quality, and other issues.

Local, state, and tribal health agencies, businesses, organizations, and citizens are all part of Washington's public health system. The agencies are primarily responsible for promoting health and preventing disease, injury, and disability within their jurisdictions. Current public health funding and capacity to respond to threats is limited, however.

The Washington State Board of Health is one of the agencies in the state's public health system. It is responsible for rule making, policy development, and public engagement. Local health jurisdictions and the State Department of Health are the agencies that most often implement Board policies. Agency representatives and community members are involved in Board policy development processes. The Board sometimes hears directly from agencies, businesses, and other organizations and individuals when they consider policies burdensome or inadequate. Often the Board relies on other agency staffs to learn about local priorities and values.

Data on environmental health exposures and health risks are often limited. Agency and public priorities, expert opinions and public perceptions don't always agree. Environmental health issues can become contentious and divisive, especially when there is uncertainty about health risks, values are threatened, concerns are not addressed, and lack of trust develops.

The Board's past environmental justice priority work found that communities want more meaningful involvement in addressing environmental health issues.¹ Agencies often have not adequately engaged citizens in understanding and prioritizing public health issues.² How do Washington environmental health agencies involve community members in setting priorities? How can agencies improve information used in making environmental health policy, so that policy decisions better incorporate diverse priorities and values?

The Board's Environmental Health Committee explored these questions by asking local, state, and tribal health agency staffers how they determine environmental health priorities and involve community members in their work. The Committee staffer also interviewed other agency and community members to learn about their experiences working on community environmental health assessments and with environmental health agencies. She also asked interview participants for recommendations on how to improve community environmental health assessment and other priority setting and community involvement processes. The following groups and individuals participated in the interviews:

- Local health jurisdiction community assessment coordinators.

¹ *Final Report State Board of Health Priority: Environmental Justice*, 2001

² Inside Olympia, July 26, 2004; with Bill Vogler, Washington State Association of Counties and Stan Finkelstein, Association of Washington Cities; www.tvw.org

- Local health jurisdiction environmental health directors and staffers.
- State Department of Health environmental health staffers.
- State Department of Ecology staffers.
- A tribal health planner.
- Participants in two community environmental health assessment best practices:
 - Seattle Environmental Justice Needs Assessment White Center Team.
 - Island County Environmental Health Assessment Team.
- Two additional groups of agency and community members who worked with environmental health agencies:
 - Community and agency members involved in Spokane River issues.
 - Collaborative on Health and the Environment members and other environmental health advocates.

The Committee also brought together local and state agency, non-governmental, and university people interested in community environmental health assessment. They developed recommendations and implementation strategies to improve environmental health and community involvement in community health assessment practice. The Committee used these recommendations and information summarized from the group interviews to develop the recommendations in this report.

This report concludes with the Committee's eight recommendations for ways the State Board of Health, Department of Health, Department of Ecology, local health jurisdictions, and their partners can improve community environmental health assessment practice.

This project and report are not intended to be comprehensive.³ This project is a brief effort to promote community environmental health assessment as a tool for more systematic, transparent, broad-based, and inclusive environmental health policy-making processes. The Committee hopes that this project inspires additional agency, interagency, and public discussions. It also hopes that local, state, and tribal agencies, other organizations, and individuals are able to use this report to improve community involvement and policy-making processes.

Community Environmental Health Assessment

*The Future of the Public's Health in the 21st Century*⁴ described the nation's public health system as fragmented. It recommended that public health activities be organized around the three core public health functions of assessment, policy development, and assurance. National and state public health frameworks describe how community environmental health assessment performs many core public health functions and plays a key role in building our public health infrastructure and partnerships.⁵

What is community health assessment?

³ Other more comprehensive efforts and resources are listed in Appendix B and on the AssessNow web site: www.assessnow.info

⁴ *The Future of the Public's Health in the 21st Century*, Institute of Medicine, 2003

⁵ Essential Public Health Services, www.health.gov/phfunctions; Washington State Public Health Improvement Plan, www.doh.wa.gov/Standards

Community health assessment is a systematic way of identifying and communicating health information and resources relevant to a particular community. Information is from expert and non-expert sources, and includes statistical data, needs, concerns, perceptions, and values. Agencies, organizations, and individuals work together throughout the assessment process. Community health assessment can:

- Assist in establishing community priorities and developing action plans.
- Address a particular problem that has arisen in the community.
- Assist in the allocation of funding and other resources such as staff time.
- Support funding proposals.
- Inform elected officials and members of organizations serving the community.
- Collect data to support actions to address systemic inequities.
- Enhance community organization by developing indigenous leadership, strengthening community participation, and forging community consensus.⁶

Community health assessment can include many of these elements. Participation in community health assessments is often limited to public health and health care representatives. Community health assessment reports most often contain health status data such as mortality rates from specific illnesses.⁷

Why is environmental health vital to community health assessment?

An assessment of a community's health would be incomplete without considering environmental health risk factors. Environmental health risks contribute to approximately a quarter of the disease burden in the U.S.⁸ A recent Canadian study found that counties with higher pollution levels tended to have higher per capita health care costs.⁹

National and Washington state groups focused on improving public health systems have identified assuring environmental health and community health assessment as core public health functions.¹⁰ Groups focused on environmental health practice have also included assessment as a core function.¹¹

Why is community involvement vital to community health assessment?

Community health assessment processes can be forums where scientific and experiential knowledge, beliefs, and political will can interact and influence each other. The processes can facilitate dialogue among people who value health but hold divergent beliefs about public health threats and priorities, levels of acceptable risks, and how best to manage risks. They can improve the equity, transparency, and accountability of public health policy decisions. This can only happen if community organizations and individuals are active participants.

Although public health agencies bear primary responsibility for leading community health improvement efforts, their success hinges on their ability to establish and maintain effective partnerships.¹² Community partners can advocate for the goals and objectives

⁶ *Community Assessment Handbook*, City of Calgary, www.calgary.ca

⁷ More information on community health assessment is available at www.assessnow.info

⁸ "Ten Leading Causes of Death in U.S." CDC, 1975; *2003 Draft Report on the Environment*, EPA

⁹ *Environmental Health Perspectives* 111(10): A517

¹⁰ (*PHIP*, 2001 and 2002; *Future of Public Health*, IOM, 1988 and 1998)

¹¹ Environmental Health Competency Project, APHA & CDC, 2001; Essential Services for Environmental Health, http://healthlinks.washington.edu/nwcpnp/nph/s2003/osaki_s2003.pdf

¹² *Healthy People 2010 Toolkit*, <http://www.healthypeople.gov/state/toolkit/default.htm>

of the state plan in the community and with policy makers. They can recruit other partners, lobby for funding public health programs, contribute particular skills and talents, and help monitor progress and achieve objectives.

When the public is meaningfully involved positive impacts can be broader than physical health – they can extend to communities' social and political health. Community health assessment processes in which government agencies, community organizations, and individuals share knowledge and power can build civic trust and social capital, contributing to improved health. Improved social cohesion can influence health by promoting more rapid diffusion of health information and by providing social support, self-esteem, and mutual respect.¹³

Risk communication and community environmental health assessment

Public health professionals want policy decisions to be evidence-based and data-driven.¹⁴ Data do not speak for themselves, however, and scientific methods and reasoning are unfamiliar to many people. Although the public and policy makers are varied, in general they often rely on personal experience, stories, and emotions to make health decisions.¹⁵ For scientific information to be meaningful to members of the public and policy makers, the “bottom line” must be communicated in layman's terms: how the data affect people's health, what it means, and what must be done.¹⁶

Explaining and describing risk to non-scientists is probably the most challenging situation for public health practitioners. The foundation of effective risk communication is a solid understanding of stakeholders' needs, expectations, and priorities. Community environmental health assessments can provide forums and foundations for effective risk communication.

General principles for risk communication are important for productive community environmental health assessment processes:

- Realize that each situation is unique.
- Assess scientific evidence.
- Recognize and address audience fear and anger.
- Examine risks and benefits from multiple perspectives.
- Involve stakeholders in the process.
- Provide adequate resources and use persons trained in risk communication.
- Acknowledge uncertainty.
- Translate the science.
- Describe specific actions being taken and recommended actions.¹⁷

Effective communication is a two-way exchange. Communication is impeded when public opinion, values, and beliefs are not listened to and responded to with respect. It breaks down when experts or other public health practitioners assert that the public is irrational and that public perspectives are not valid. Any public trust that may have

¹³ *The Future of the Public's Health in the 21st Century*, IOM, 2003, p. 71

¹⁴ Assessment in Action Evaluation of Community Health Assessment Practice, 2003, <http://www.doh.wa.gov/EHSPHL/AIA/chapeval.htm>; Washington Public Health Improvement Plan; *The Future of the Public's Health in the 21st Century*, IOM, 2003

¹⁵ Tinker & Vaughan, *Communicating Public Health Information Effectively*, 2002, p. 5

¹⁶ Tinker & Vaughan, *Communicating Public Health Information Effectively*, 2002, p.33

¹⁷ Tinker & Vaughan, *Communicating Public Health Information Effectively*, 2002, p.185-203

existed is then destroyed. Without trust and effective communication, conflict may escalate and emotions dominate attempts to address environmental health problems. This is counterproductive to the mission of public health agencies: protecting public health through education, assessment, policy development, and assurance.

Sidebar quote:

The major public health challenges since 9/11 were not just clinical, epidemiological, and technical issues, they were communications. Communication may become the central science of public health. – Edward Baker, Assistant Attorney General, 2001

Environmental Health Priority Setting, Community Involvement, and Community Environmental Health Assessment in Washington State

Government public health agencies bear primary responsibility for assuring the delivery of essential public health services.¹⁸ Within local health jurisdictions boards of health, health officers, and health departments or districts have extensive public health prevention and planning responsibilities.¹⁹ The State Department of Health is responsible for the preservation of public health and planning for state activities as they relate to the health of its citizenry.²⁰ The Department of Ecology is responsible for environmental protection and management.²¹ Tribal Councils and Health Boards are also responsible for the health of Tribal members. Government public health agencies cannot assure the public's health alone – other agencies, organizations, institutions, and individuals also play a vital role in the public health system. The State Board of Health works with as many agencies, organizations, and individuals as possible to fulfill its policy development, rule making, and public engagement duties.²²

Local Health Jurisdictions

In Washington State, local health officers have broad powers and duties within their jurisdictions (LHJs) to:

- Take actions to control and prevent the spread of disease.
- Inform the public about causes and prevention of disease.
- Preserve, promote, and improve health.²³

Although these powers and duties are broad, financial and political support for many activities required by law and expected by the public is often limited.

Funding for environmental health services is increasingly fee-based, categorical, and inflexible. This restricts environmental health departments' ability to assess and address

¹⁸ *The Future of the Public's Health in the 21st Century*, IOM, 2003, p. 27

¹⁹ RCW 70.05

²⁰ RCW 43.70.005

²¹ RCW 43.21A

²² RCW 43.20.050

²³ RCW 70.05.070

health concerns. *The Future of the Public's Health* questions the public health infrastructure's capacity to provide essential public health services to every community.²⁴ The Washington Public Health Improvement Partnership (PHIP) found that 72% of LHJs could fully or partially demonstrate meeting environmental health standards in at least one area. The PHIP is working on ways to secure stable, flexible funding necessary to improve the public health system.²⁵

Since 1994, every local public health jurisdiction has completed assessments of its residents' health status. Some included environmental health issues and many included some type of community involvement. These health assessments helped local agencies increase their skills in setting priorities and working with community leaders to address health issues. The PHIP also directed flexible resources to communities to help them respond to local needs. Many local agencies were not able to continue or build on this effort, however, due to lack of dedicated funding and internal capacity.

To learn more about LHJs' community environmental health assessment practice, the Committee staffer conducted individual and group interviews with 10 Eastside and 11 Westside environmental health directors and staffers, and nine Eastside, eight Northwest and 10 Southwest community assessment coordinators. Interviews focused on:

- How environmental health priorities are set in their work and agencies.
- Community environmental health assessment models and other community involvement processes.
- Barriers to integrating environmental health issues in community health assessment processes.
- Recommendations to improve community involvement and environmental health assessment.

Environmental Health Directors Interview Results

Findings: Environmental health priority setting

Interview participants reported that legal and political mandates, funding (fees and grants), public health impacts, crises, complaints received, and political visibility and ramifications determine their health department priorities. Public perception of health risks results in community interest, which influences political will, which determines priorities.

Health department staff and local board of health members most often decide on official health department priorities. Community members and advisory groups often influence these priorities. Official priorities don't always match how time is spent, however.

Some LHJs have formal processes for determining environmental health priorities using specific criteria such as: if the issue is population based, if there's a public health program, and if someone else cannot do it. Another LHJ uses criteria that include severity, population affected, legal and/or political mandate, and public perception.

²⁴ *The Future of the Public's Health in the 21st Century*, IOM, 2003, p. 7-8

²⁵ *2002 Public Health Improvement Plan*, Washington State Department of Health, www.doh.wa.gov/phip

Most LHJs do not use a prioritization process that systematically identifies environmental health risks and includes diverse community members in prioritizing environmental health issues. They generally rely on staff knowledge, experience, anecdotal information, and limited data. Tacoma-Pierce County Health Department hired a staffer to develop a sustainable data system so staffers can look at trends, connect data, and identify problems more systematically. They plan to use the information for program evaluation, to inform decisions, and to meet community needs.

Findings: Barriers to doing community environmental health assessments

Many environmental health directors interviewed would prefer their prioritization processes be more data driven and systematic, but they do not have adequate funding and staff capacity to develop these processes.

Current data collection tools are inadequate – most community health assessments include few environmental health issues. Survey tools such as the Behavioral Risk Factor Surveillance Survey include few environmental health questions. The environmental health questions used are not useful – they are not in depth enough, are not designed to measure qualitative aspects, and are not comparable to other information sources.

Another barrier is lack of capacity to address environmental health issues and concerns raised by community environmental health assessment processes. Communication of assessment results can be negative and create public relations and political problems, unless health departments are able to address problems raised.

Recommendations: To improve environmental health priority setting

- Use a proactive approach to address environmental health issues before there is a particular concern, so policy decisions are less politically motivated. The precautionary principle is a useful proactive approach.
- Develop standardized indicators with desired environmental outcomes that are relevant to the public and comparable across the state. Track issues that the public is concerned about.
- Develop stable, continuous funding for ongoing assessments and to address needs identified by assessments.
- Community health assessment staff should work with environmental health staff. Environmental health staff should do community health assessments.

Findings: Involvement of other agency and community members

Environmental health department staff use their own knowledge of communities, agencies, and organizations to identify and involve other agency and community members. Involvement of community members in advisory groups and other processes is almost always single issue-focused. Specific interests tend to drive people involved. Citizen involvement is difficult to maintain – they leave when they are not directly connected to the issue.

A few LHJs have expanded local boards of health with community members from different fields. These additional members give the boards a broader perspective.

Island County Health Department has a systematic community environmental health assessment process underway using the *Protocol for Assessing Community Excellence in Environmental Health*.²⁶

Recommendations: To improve community involvement in community environmental health assessments and other existing processes

- Encourage and train staff to work collaboratively with community members and other agencies and to help them share decision-making power. Ensure that assessment processes are two-way streets, so community members find out about environmental health and agency staffs find out about community concerns. Respond to those concerns.
- Build trust by having a community liaison that becomes a familiar, friendly face over a period of time. This ensures the assessment and input are more useful and error-free.
- Educate the public, advisory committees, and local boards of health about environmental health, risk assessment, problems, challenges, contexts, reasons, and constraints.
- Expand local boards of health to include community members.
- Develop political will for changes based on assessment findings.

Sidebar quotes:

Environmental health is like the old family car – as long as the key turns and the car runs, no one cares, it's taken for granted. When something doesn't work it becomes a problem, and a priority. – David Riggs, Wahkiakum County Health Department

Community processes are the hardest things to do – to bring people on board, to increase understanding, and to create a product. We need to recognize this is part of our work – tracking, communicating, respecting other experiences. – Ngozi Oleru, Public Health Seattle & King County

Community Assessment Coordinators Interview Results

Findings: Environmental health priority setting

Health department staffs and local boards of health generally set environmental health priorities. Priorities are not usually based on data, but are based on regulations, funding, outbreaks, emerging trends, community concerns, political pressures, and emotional responses to issues. Public perceptions, media, and popular culture influence emerging trends.

Some tools and criteria are also used to determine environmental health priorities. Several LHJs use community health assessment tools: the *Protocol for Assessing Community Excellence in Environmental Health (PACE-EH)*, the Hanlon method, an adaptation of the Community Health Assistance Resource Team process model²⁷, focus groups, and surveys. They also use data from the Behavioral Risk Factor Surveillance Survey environmental health module and other sources. One LHJ used these formal

²⁶ More information on the Island County Environmental Health Assessment Team see page 27.

For more information on PACE-EH: <http://www.naccho.org/project78.cfm>

²⁷ For more information on CHART: www.health.state.mo.us/CHART/

criteria: the community cannot do it, there is an identified need, there is a mandate, it meets a core function, it has a population-based benefit, and it is prevention focused.

Findings: Barriers to doing community environmental health assessments

In many LHJs there is little if any communication between community health assessment and environmental health staffs. Some community assessment coordinators were not sure how to include environmental health issues in existing processes. Environmental health staffs are generally not involved in community health assessment processes because of limited time, funding, and training. There is lack of agreement on useful environmental health indicators, and a need for historical, standardized, accessible, and relevant county-level data. Limited capacity and funding prevent LHJs from addressing issues identified by assessment processes.

Findings: Involvement of other agency and community members

Community members are identified and involved in a variety of ways, depending on the issue and existing community organizations and involvement processes. Many LHJs involve community members and other agency representatives in advisory committees addressing specific issues.

One LHJ sought applications from community members for their *PACE-EH* Environmental Health Assessment Team. They selected members to be professionally, demographically, and geographically representative of the community.

Recommendations: To improve community involvement and incorporating environmental health in community health assessment

- Environmental health, health education, health promotion, communication, and community assessment staffs should work together to share expertise, inform the public, and use community partnerships already developed by other staffs. Use existing contacts, initiatives, forums, and organizations for community mobilization.
- Train environmental health staffs in community health assessment.
- Identify funding sources, available support, and pilot projects.
- Work with other counties on surveys and to expand capacity and data. Develop a method to share data within a county and between counties.
- Use the Healthy Youth Survey as an example of a collaborative needs assessment.²⁸
- Use “teachable moments” to involve community members when an issue becomes an urgent concern.
- Use language and data translations that are meaningful to the public.

Summary of LHJ Interview Results

LHJ environmental health and community assessment staffs who participated in the interviews want more systematic identification and prioritization of environmental health issues. LHJ community health assessments generally include few, if any, environmental health issues. This is attributed to limited collaboration between community health assessment and environmental health staffs and to the lack of accessible and meaningful environmental health data.

²⁸ For more information on the Healthy Youth Survey: <http://www3.doh.wa.gov/HYS/>

Community involvement tends to be issue-based and reactive, not proactive. Improved communication between LHJ staffs, the public, and policy makers can help environmental health priorities be less politically driven.

LHJ interview and group discussion participants described three recommendations for improving community environmental health assessment practice:

1. Fund community environmental health assessment processes that involve environmental health, community health assessment, health education, and other agency staffs, community members, and organizations.
2. Develop environmental health indicators and data that are meaningful to agency staffs, policy makers, and the public.
3. Develop agency and community capacity to address issues identified by community environmental health assessment processes.

State Department of Health Division of Environmental Health

The Washington State Department of Health (DOH) has broad power and duties that pertain to community environmental health assessment:

- Investigate and study factors relating to the preservation, promotion, and improvement of health, including the effects of the environment.
- Take measures necessary to promote public health, including health education and training activities.
- Provide information to the public.²⁹

The Washington Public Health Improvement Partnership (PHIP) found that DOH could fully or partially demonstrated meeting 81% of environmental health standards in at least one area. The PHIP is working on ways to secure stable, flexible funding necessary to improve the public health system.³⁰

The Committee staffer interviewed DOH Division of Environmental Health staffers to explore their community environmental health assessment, community involvement, and priority setting practices. The DOH Environmental Health Assistant Secretary and other staffers identified whom to interview. The Committee staffer conducted 3 group interviews with 4 Community Equity Workgroup members, 9 Leadership Team members, and 4 Office of Environmental Health Assessment (OEHA) site assessment staffers.³¹

The Committee staffer interviewed an additional OEHA staffer and Community Equity Workgroup member separately. Interviews focused on:

- How environmental health issues are prioritized in their work and in the agency.
- Community environmental health assessment models and other community involvement processes.
- Recommendations for improving priority setting and community involvement processes.

²⁹ RCW 43.70.130 and RCW 43.70.020

³⁰ *2002 Public Health Improvement Plan*, Washington State Department of Health

³¹ For more information on the OEHA: <http://www.doh.wa.gov/ehp/oehas/default.htm>

DOH Division of Environmental Health Interview Results

Findings: Environmental health priority setting

Priorities are based on federal and state requirements; agency, division, and program formal strategic planning processes and tools, such as Priorities of Government; advisory committees; funding and FTE availability; political realities; emerging issues; and evaluations of public health impacts based on available data. Information requests from the public, legislators, other agencies, and other DOH staffers also drive day-to-day priorities. Staffers put the highest priority on responding to imminent health and safety risks, current exposures, situations where they're able to intervene, public information requests, and legislators' requests.

DOH managers, the legislature, and the Governor set DOH environmental health priorities. Managers and staff decide priorities within programs. Advisory committees, LHJ staffs, Tribes, businesses, and additional community members directly influence priorities.

Community leaders, individuals, and organizations such as elders, directors, businesses, local boards of health, county commissioners, and city councils all influence community priorities. Media coverage and other sources of information about environmental health risks, especially risks to their children's health, also influence community perceptions and priorities. These in turn influence DOH environmental health priorities.

Findings: Barriers to doing community environmental health assessments

The Site Assessment Section of the OEHA is limited by the Agency for Toxic Substances and Disease Registry (ATSDR) mandate to identify and research single defined sites, although citizens petition them to look at area exposures from multiple sources. Funding for other sections in OEHA allows more response flexibility. Both OEHA and community organizations have limited capacity to address issues and participate in the assessment process due to minimal staffing and many issues to cover.

Recommendations: To improve community environmental health assessments

- More formal input into community health assessments is needed from environmental health departments. Work with the Washington State Association of Local Public Health Officials (WSALPHO) on linking environmental health and community assessment and on promoting assessment.
- Identify and address a larger risk context that includes multiple exposures and background risks.
- Train staffs on how to do community health assessment and outreach.
- Develop a resource list of DOH staffers with expertise that are willing to assist other staffs with outreach and assessment.

Findings: Involvement of community members and other agencies

State and federal requirements and guidelines tell staffs whom to involve. OEHA staffs use the ATSDR needs assessment training outline³² and the Environmental

³² Agency for Toxic Substances Disease Registry *Health Assessment Process*, <http://www.atsdr.cdc.gov/training/public-health-assessment-overview/html/>

Protection Agency (EPA) *Community Culture and the Environment* guide.³³ Staffers use existing contact information and explore site areas to identify additional contacts and outreach opportunities.

Agency representatives and community members are identified and involved based on the specific issue and the geographical area of current and potential exposure. Some DOH departments already work with a broad range of communities and stakeholders. Other departments have been gradually broadening their stakeholder lists. Some involvement processes are more formal, such as advisory committees that are required by law. Other processes are informal. When DOH internal evaluations determine that better communication is needed, staffs contact additional stakeholders. Regulatory actions and Internet use increase public awareness and can result in people contacting staffs about issues.

DOH staffs collect data and use other agencies' data and staffs to assess environmental health, track trends, and target education and outreach efforts. OEHA staffs use risk assessments and media specific models to predict environmental health risks and to rank sites. In one area they asked citizens to prioritize the sites.

Recommendations: To improve other agency and community involvement

- Use dedicated educators to develop partnerships with communities and interpret technical information at a level easily understood by those communities at risk. Fund and value these health education positions within agencies.
- Go to the sites, get direct information from community leaders and other members about their concerns, and get communities involved in decision-making.
- Periodically report back to community members. They share information with the broader community. Hold public events where communication is two-way, and agencies provide updates and hear communities' concerns.
- Raise awareness about environmental health work in communities. Develop local media campaigns. Identify "hooks" relevant to specific communities, and tell stories about those issues.
- Cultivate relationships with community based organizations and non-profits, as DOH does with LHJs.
- Include public members and other agency representatives on advisory committees. Committees should meet regularly, set goals, find solutions, and have a broad issue focus. The Pesticide Incidence Reporting Team is a good example of this.
- Provide multiple community involvement methods for the different levels and types of involvement that Tribes, community organizations, and individuals may be able and willing to participate in.
- Accept the public's concerns and that people may be upset and have questions. Learn how to respond productively. Don't get defensive or treat the members of the public as if they are irrational. Research cultures, backgrounds, and histories. Understand their experiences and perspectives, and develop empathy.
- Fund community groups to hire consultants to assist the groups in focusing on the science and on human and ecological risks.
- Fund community groups to do outreach. This improves community leaders' buy in, communication networks, and DOH customer service.

³³ *Community Culture and the Environment: A Guide to Understanding a Sense of Place*, 2002, US EPA (EPA 842-B-01-003), Office of Water, Washington, DC.
<http://www.epa.gov/publicinvolvement/involvework.htm>

- Fund translations of high priority information. Each DOH office should have money specifically for translations, as they do for training.
- Provide leadership within the agency and with external partners. Support and follow through on commitments staffers make to communities at all levels in the organization.
- Improve communication between agencies, within agencies, and among communication and science staffs. Agencies' territoriality and internal hierarchies make communication difficult.

Summary of Interview Results

DOH Division of Environmental Health staffers interviewed listed a variety of priority setting methods and influences, both internal and external. Federal and state requirements, funding, environmental health risks, and political pressures influence priorities. Community involvement processes are most systematic and broad in the OEHA, probably due to the ATSDR mandate, training, and dedicated staff. Other DOH offices have issue-specific advisory committees and respond to inquiries. Many staffers are working to improve communication with other agencies, stakeholders, and diverse organizations and individuals.

It is time and labor intensive to develop the necessary components of meaningful community involvement: effective communication skills and materials, knowledge of interested and affected communities, partnerships, and trust. More health educators, additional training in outreach methods, specific funding for translations of high priority education materials, and a staff resource list would improve existing processes.

Some of these DOH staff recommendations require additional funding. Other recommendations require a shift in staff attitudes and in organizational culture, in order to view community organizations and individuals as allies and more equal partners in fulfilling the DOH mission to protect and improve the health of people in Washington State.

Sidebar quotes:

There's a bias against community-based assessment, because it doesn't have statistically significant results, its not real epidemiology. But how can you get all the information if you don't talk with people? - Rob Duff, DOH OEHA

There's no cookie-cutter approach. You have to work odd hours, make commitments, and respect people. You're not the expert in other people's communities. Ask, "What can I learn from this." - Marcia Henning, DOH OEHA

State Department of Ecology

The Washington State Department of Ecology (Ecology) was created in 1970 to protect, preserve, and enhance Washington's environment, and promote the wise management of our air, land, and water for the benefit of current and future generations.³⁴ The legislature specifically directed Ecology to, "in consultation with affected constituent

³⁴ RCW 43.21A

groups, continue appropriate public involvement and outreach mechanisms designed to provide cost-effective public input on their programs and policies.”³⁵

In 1970 the legislature directed that the Board, DOH, and Ecology consult with each other so that “agencies concerned with the preservation of life and health and agencies concerned with protection of the environment may integrate their efforts and endorse policies in common.”³⁶

The Committee staffer contacted Ecology regional office directors and a Spokane community outreach coordinator to see who was interested in being interviewed about Ecology environmental health priority setting and community involvement processes. The Committee staffer received enthusiastic replies, resulting in eight group interviews with 57 staffs from the Eastern, Central, Southwest, and Northwest Regional Offices and Headquarters. Interviews included regional directors, managers, environmental education and outreach staffers, and others. Interviews focused on:

- How environmental health issues are prioritized in their work and in the agency.
- Community environmental health assessment models and other community involvement processes.
- Recommendations for improving priority setting and community involvement processes.

Department of Ecology Interview Results

Findings: Priority setting

Priorities are primarily risk based and directed by federal and state laws, regulations, and funding. When regulatory standards are exceeded and there is an imminent threat, actions become a priority. Priorities can be proactive, focused on preventing exposures. Priorities can also be reactive, driven by catastrophes and emergencies. Sometimes it takes a problem to occur before policy makers take action.

External influences on priorities include state and local elected officials, public outcry, local concerns, media coverage, advocates, businesses and industries, lawsuits, and court mandates. Changes in administrations can change priorities. Tribal laws, regulations, and concerns also influence priorities. Some priority projects are inherited from the Environmental Protection Agency.

Ecology staffs use the Priorities of Government process³⁷, an internal flow chart, an Environmental Justice Checklist, and mapping to determine agency priorities. The agency and program management develop work plans that incorporate these priorities and get input from staffers and stakeholders. Implementation of work plans is influenced by the agency philosophy as well as changes in political and public concerns.

“Doability” is considered when determining priorities: who supports the work, likelihood of success, and political will. Site owners’ support for agency actions also drive priorities. Some individuals and groups want actions that are more protective of human

³⁵ RCW 43.20A.005

³⁶ RCW 43.20.035, RCW 43.70.310, RCW 43.21A.140

³⁷ <http://www.ofm.wa.gov/budget/pog/overview.htm>

and ecological health. Others see agency activities as burdensome. Sometime staffers are not sure why a site or project becomes a priority.

Payment for projects also influences priorities. Voluntary Cleanup Program projects are a greater priority than projects whose proponents didn't pay the \$500 fee. Some proponents hire Ecology staffers to work on and prioritize their project.³⁸

Complaint data and exposure data from monitoring, site assessments, and environmental impact assessments influence priorities. Ranking methods and criteria are used. Environmental health information is incomplete, however, especially with respect to non-quantifiable impacts. This limits the agency's ability to fully consider environmental health, environmental quality, and economic impacts when setting priorities.

Recommendations: To Improve environmental health priority setting

- Consider scientific information and public perceptions when making decisions on projects. Then there would be less outrage and polarization. Be wary of motivations behind complaints and concerns, however, since people may have hidden agendas.
- Encourage agencies to use the State Environmental Protection Act to look at environmental health and equity issues.
- Develop and use better data and risk comparison tools, so staffs can look at emissions, exposures, net benefits, human health impacts, and possible actions, and then decide priorities. Include non-lethal impact data.
- Improve economic impact calculations to take into account relative impacts on low-income communities who are often most at risk and where costs take up a greater portion of their income.

Findings: Involvement of other agency and community members

Ecology staffers work with federal, state, and local agencies and with tribes. They also work with elected officials, businesses, industries, environmental groups, residents, agencies, and other organizations and individuals. The issue and jurisdictions determine who is involved. Jurisdictions aren't always clear or agreed upon. Environmental justice issues have encouraged agencies to work together to address concerns.

Programs operate under different laws and regulations that require certain levels and methods of community involvement and communication. When health issues are involved staffers rely on local and state health agencies to interpret health data, involve the appropriate community members, and communicate health messages.

Communities are identified geographically and by issue: who is potentially affected, who has scientific knowledge and experience with the issue, who is responsible, and who can help identify impacts, costs, and benefits. Geographic information system data is increasingly useful in identifying who might be impacted. Staffers primarily get input from organized groups. When something happens in their neighborhood individuals may contact Ecology for information and action.

³⁸ For more information on the Voluntary Cleanup Program:
<http://www.ecy.wa.gov/pubs/971583tcp.pdf>

Many methods are used to inform and involve people and identify issues of concern: advisory groups, stewardship and watershed protection projects, task forces, focus groups, surveys, interviews, personal contacts, stakeholder lists, local health agency staff, presentations, a public events calendar and other information on their web site, petitions, pre-application meetings, complaint processes, organizations' meetings, and public meetings. Ecology's Toxic Cleanup Program gives public participation grants to community groups and has flexibility to figure out which methods work.

Program and site managers and staffers determine outreach activities. Outreach extent and focus are based on job classifications, supervisor support, program requirements, resources, and personal commitment to community outreach. The extent of Ecology outreach may also depend on the geographical range of the project and other agency's outreach capacity.

Findings: Barriers to meaningful community involvement

Interview participants reported that outreach activities and staffers are not always valued by the agency. Sometimes outreach staffers are consulted at the end of a project or when there is a crisis. Then they spend a lot of time putting out fires, and there is no time for meaningful involvement. There is also the perception that outreach staffers are the first to be cut and cannot hold upper level positions, and that technical staffers see outreach work as slowing down what they think is the "real work" – cleanup, permit writing, and other regulatory actions. Other staffers interviewed expressed concerns that outreach activities beyond formal processes may invite opponents to challenge projects.

Managers may decide that a site needs additional community involvement, based on community characteristics and risks. Resources and time are often too limited to do adequate education, outreach, or involvement, however. There are not enough education and outreach staffers, and some technical staffers do their own outreach. This can result in ineffective and unproductive outreach, as well as overworked technical and outreach staffers.

Environmental justice principles are included in the agency mission and some job classifications. Although the agency has developed an environmental justice checklist to operationalize these principles and encourages its use in prioritizing projects, few reported using the tool.

People don't always believe scientific information, especially when it's new. Also, sometimes it's difficult to get people to address problems when they're responsible for or contributing to a problem.

When there are legal issues, staffers communicate with the public only through formal means such as public information disclosures.

Recommendations: Overcoming barriers to involving other agency and community members

- Train staffs to do community outreach and to use existing tools, such as the environmental justice checklist and the 1999 public involvement manual. Require cultural competency training for all staffs, using theatrical presentations and role reversals. When technical staffers do outreach work, ensure they are adequately trained.

- Provide staffers with additional tools to engage and communicate with the public, especially to reach individuals not represented by organized environmental, business, and other community groups. Train staffs to be aware of histories and victim dynamics, and that people can be rational but not necessarily logical to you.
- Ask communities and policy makers what their priorities are before there is a problem. Spend time trying to understand their cultures and develop trust. Identify key informants and information networks, and get them the information they need. Ensure information is relevant to policy makers' and communities' needs. Offer support and show how other counties have addressed issues.
- Communicate with legislators and agency leaders about the need for flexible funding to coordinate management of environmental health issues. This includes funding for environmental education, community involvement, and developing data systems to improve our understanding of complex issues.
- Define roles, responsibilities and expectations together with other agency and community members. Develop flow charts for how different agency and community members should communicate on issues. Clarify agency constraints and define what meaningful involvement is. Coordinate messages, share resources, share information on the process and the problem, be honest, and don't use a "decide, announce, and defend" approach.
- Use consistent messages when possible. When there isn't agreement on information and policies hold public discussions about what we know and don't know.
- Encourage health officials, including medical professionals, local and federal leaders, and health organizations, to talk about environmental health issues in communities.
- Make sure that statewide messages are locally relevant. For example, motor vehicles may be the largest source of air pollution statewide, but smoke from indoor and outdoor burning is the major source of air pollution in many rural communities.
- Communicate face to face in small, facilitated open public meetings and workshops. Smaller facilitated meetings are the best, since more formal settings and large groups intimidate some people.
- Capitalize on existing formal and informal communications. Encourage staffers to develop additional linkages with other agency, business, and community groups and individuals.

Recommendations: To improve organizational communication and culture

- Support and value outreach staffers and community involvement work. Require community involvement and include outreach staffers in development of plans and processes. Clarify staff roles, improve internal communication and cross-train staff so they understand and value each other's expertise and roles.
- Merge environmental justice principles into Ecology activities and organizational culture. Use environmental justice criteria, such as those on the checklist, to prioritize projects. Promote the Environmental Justice Coordinator to a level where they can influence organizational culture to keep these issues alive.
- Hire and recognize the value of people who think differently from the agency culture and speak multiple languages. Hire and reward staffers with communication and social marketing skills. Hire staffers from diverse ethnic, socioeconomic, and cultural backgrounds, and who can relate to different cultures and communities. Agency staffs should reflect the diversity of the state.
- Apply the Ecology code of conduct internally as well as externally. Respect staffers and encourage them to share information. Use staff expertise and historical knowledge of issues and communities. Improve managers' understanding of

interpersonal dynamics and talk about the communication process itself and issues involved.

- Build evaluations into projects and processes so we know how to best use funding in the future. It's a challenge to measure goals in terms of what doesn't happen, when the project goes smoothly.
- Develop guidance on when consensus is needed and when it isn't. Sometimes the agency focus on achieving consensus is unrealistic and dysfunctional.
- Promote change from the top down as part of the agency's plan, supported by management.

Summary of Ecology Interviews

Ecology staffs interviewed value meaningful community involvement in their work. Several spend a lot of time "putting out fires" that could have been prevented with proactive education and outreach. Many have seen projects come to a halt because of public outcry, escalating conflict, and political pressures. They have seen projects go smoothly when other agency, business, and additional community members are involved from the beginning. Others interviewed are concerned about inviting challenges to projects.

Different program staffs function under different laws that require specific actions, levels of communication, and involvement. They use a variety of mandated and other formal methods to determine priorities. They describe a wide range of internal and external influences on priorities. These include health risk data, public outcry, and political pressures. Better data and risk comparison tools are needed to show more complete costs and benefits, determine priorities, and address concerns.

The complexity and volume of environmental health issues requires improved communication and collaboration within Ecology, and with other agencies, policy makers, organizations, and individuals. There are not enough education and outreach staffers to ensure information is communicated effectively and community members are meaningfully involved.

Some of the recommendations Ecology staffers suggested require additional funding. Others require a shift in staff attitudes and in organizational culture, by putting greater value on community involvement, internal and external communication, and education and outreach staff.

Sidebar quotes:

It's been a disaster when there isn't enough community outreach and involvement of other agencies in sharing information and decision-making. We need to bring other partners in from the get-go. – Ecology staffer

Our regulatory way of environmental protection is a cultural expression itself. If you're not used to this mode of action or communication you may not know how to participate. – Ecology staffer

Some agency staffs see public involvement activities as burdensome, problematic, difficult, or they just see it as a box to check off on a list. It is messy and complicated, which makes some uncomfortable. – Ecology staffer

Tribal Community Health Assessment

Until recently, monitoring and surveillance of disease and disease risk factors among American Indian and Alaska Native (AI/AN) people has been a function of the Indian Health Service (IHS). In the Portland area, which includes Washington, downsizing resulted in reduced IHS capability to adequately perform basic epidemiological functions such as monitoring the health status of AI/AN communities. In 1997 the Northwest Portland Area Indian Health Board (NPAIHB) received funding for the development of the Northwest Tribal Epidemiology Center (Epicenter).³⁹

Measures of AI/AN health status are typically only available at the national or regional level, and may not reflect the concerns of particular tribal communities. Epicenter staffers have worked with Washington and other Portland Area Tribes to conduct Behavioral Risk Factor Surveys and develop the Indian Community Health Profile Project to measure health status in a way that is meaningful to Tribal members and useful in health program planning and evaluation.⁴⁰

Behavioral Risk Factor Survey

The NPAIHB provided assistance to three Washington tribal communities to do a Behavioral Risk Factor Surveillance System-type survey (BRFSS), with funding from the Center for Disease Control and Prevention and the Oregon Health Sciences University. NPAIHB staffers selected tribal communities randomly from tribes with at least 1000 members. Data entry personnel and interviewers were hired within each community. Interviews included questions on drinking water sources.⁴¹

The Indian Community Health Profile Project (ICHPP)

In 1999 the Epicenter, with support from the IHS and Robert Wood Johnson Foundation, brought together a group of experts in Indian health to develop health indicators to measure overall health status of AI/AN communities. They used a broad definition of health, and developed a set of 15 indicators to reflect different domains of health. The environment indicator developed was the “presence of tribal ordinances requiring auto safety restraint use, and prevalence of auto safety restraint use” for children, youth, and adults. The ICHPP used a Behavioral Risk Factor Survey and the Youth Risk Behavior Survey to obtain much of the data.

The Epicenter provided technical and funding support for the tribal communities participating in the ICHPP, and encouraged communities to use the ICHPP as a model that can be modified to fit local needs. Major goals of the ICHPP have been to:

- Develop health indicators that are locally useful, practical, meaningful, and serve as proxies for overall health status.
- Engage the community in a systematic approach to assessing health status.
- Build assessment capacity within tribal communities for ongoing assessment efforts.
- Use the assessment findings locally for program planning, development and evaluation, health education, and outreach.

³⁹ www.npaihb.org/epi/Epihome.html

⁴⁰ www.npaihb.org/epi/ichp/ichp/html

⁴¹ www.npaihb.org/epi/brfss/webpage_brfss.htm

The Port Gamble S'Klallam Tribe was one of three NPAIHB ICHPP pilot communities. It was the only ICHPP pilot community in Washington.⁴² In 2001 the Indian Health Service decided that the ICHPP included the spirit and content of the Healthy People 2010 Leading Health Indicators, and provided support to expand the project to three new tribal communities.

Port Gamble S'Klallam Tribe Indian Community Health Profile Project

The Port Gamble S'Klallam Tribe is one of 29 federally recognized Indian Tribes in Washington State. There are currently just over 1,000 enrolled tribal members, and about half reside on the reservation. The total reservation population is 932, including other Native Americans and non-Indians. The reservation is located on Port Gamble Bay, which has long been an important natural resource. The Port Gamble S'Klallam Tribe has been increasing its interaction with its neighbors in the North Kitsap area, making it known that it is concerned about issues related to growth, water resources, and land use.⁴³

Port Gamble S'Klallam Health Board members learned about the opportunity to become an ICHPP pilot community at a NPAIHB meeting, and discussed it at their Health Board meeting. Health Board members and Health Department staffers were supportive of participating in the ICHPP. The Tribe is responsible for members' health, and Tribal leaders saw a need for quality data specific to the health of Indian people to determine priorities, identify needs, and use as a foundation for planning.

As part of the ICHPP, 16 Tribal members received training on the BRFSS, basics of community health assessment, and valid methodology. The trainers were from the Centers for Disease Control and Prevention and the NPAIHB. The Health Department administered the BRFSS to 96% of Reservation households, interviewing 97% of all adults, and administered the Healthy Youth Survey to almost all the Reservation youth in the target age ranges.

The Committee staffer interviewed Port Gamble S'Klallam Tribal Health Planner Lou Schmitz to identify strengths that contributed to the project's success. She also asked Lou Schmitz for recommendations on improving community health assessment practice and how Washington state government agencies could work better with Tribes on health issues.

Port Gamble S'Klallam ICHPP strengths

Stable and shared Tribal Council and Health Board members contribute to a solid understanding of community needs, consistency, and linkages between the two decision-making bodies. Health Board members hear from staffers and other tribal community members about health issues during their monthly meetings.

The Tribal community members are generally well informed and involved. They are aware of health issues and present health issues to the Health Board. The Tribe sponsors many health-related community events. A monthly newsletter is delivered to all Reservation households containing mostly health-related information.

⁴² <http://www.npaihb.org/epi/ichp/ichp.html>

⁴³ www.pgst.nsn.us

Trained health department staffers engage other community members, departments, and agencies. They always strive to maximize inclusion of community members in assessment and planning activities. Focus groups are often used to identify adult and youth concerns and desired services. Various committees meet regularly, with meetings open to all community members. The Tribe's Natural Resources Department closely monitors the levels of toxins in shellfish. The Tribe has worked with the Environmental Protection Agency to study levels of arsenic in the food and water consumed by community members. They have received technical assistance and funding from the Kitsap County Health Department and the Washington State Department of Health.

Recommendations: To improve community health assessment practice

- Invest a lot of time and resources – it's worth it. We use the assessment data to modify existing programs, create new programs, to evaluate how effective our programs and services are, and as ongoing indicators.
- Be very inclusive of all sorts of people – professionals, private citizens, everyone.
- Educate community members, professionals, and leaders about what you're doing, why, and what the benefits will be.
- Be thorough, collect information from all types of people in the community. Think of ways to involve those people who never participate in community efforts, and who you know least about.
- Get everyone in the community involved. We held three meetings with tribal members, staffs and Tribal Council. The Tribal Council requested representation from every department of our Tribal Government. This helped build support, understanding, and willingness to participate. It made all the difference.

Recommendations: How Washington health agencies could work better with Tribes

- Learn about issues specific to Indian people. For example, morbidity and mortality rates are underreported for Indian people, due to race or Tribal affiliation not being properly identified. We need to know race and Tribal affiliation to get an assessment of the full extent of health problems for Indian people and to pinpoint health issues for specific tribes.
- Work with Tribes. The Tribes have knowledge of issues specific to their community and how to approach efforts in a way that is culturally appropriate and effective. The state and local health agencies have a broader range of resources and access to technical expertise that can greatly support and enhance the Tribes' local capacity.
- Use existing forums to learn more about Tribal health issues, such as American Indian Health Commission, NPAIHB, and the DSHS Indian Policy Advisory Committee meetings.

Summary

The Port Gamble S'Klallam ICHPP was successful: it involved many community members and provided meaningful data for Tribal health planning. This success was in part due to the Tribe's sense of community and shared responsibility. Strong and stable leaders, dedicated and trained health department staff, and involved community members inform each other. This results in policy decisions that reflect community health needs and concerns. The Tribe's ICHPP was also successful because it utilized external resources and developed internal knowledge and capacity for the benefit of the Tribe's health.

The 2003 American Indian Health Care Delivery Plan recommends that the American Indian Health Commission “should work to ensure that tribes have funding for community health assessments,” as part of building public health capacity. The Delivery Plan also mentions “promoting public health bridges between DOH and local health jurisdictions” – community health assessment practice is an area where state, local, and tribal health departments can learn from each other’s best practices.

Two Washington Best Practices

During this project the SBOH Environmental Health Committee found two community environmental health assessments that it defined as “best practices” because they included:

- ❖ A focus on environmental health indicators or issues.
- ❖ Assessment of community values, perceptions, and concerns.
- ❖ Meaningful involvement of a broad range of community members and organizations.

Seattle Environmental Justice Needs Assessment

The Seattle-based Environmental Justice Needs Assessment (EJNA) project is a partnership of Seattle Public Utilities staff, government agency partners, community agency partners, key informants, and immigrant community members. It is funded primarily by the King County Local Hazardous Waste Management Program to do community needs assessments in four King County English-as-a-Second Language (ESL) communities. The EJNA project began in 2002 in the International District and Yesler Terrace areas, and continued in 2003 in the White Center area.

Key purposes of the EJNA project include:

- Partner with Community Based Organizations (CBOs), other local government organizations, and community participants to identify the top environmental health needs and concerns of immigrant and refugee communities, particularly in the area of household hazardous waste.
- Increase capacity of CBOs, nonprofits and local government partners, including the King County Local Hazardous Waste Management Program, to serve immigrant and refugee communities.

EJNA partners participated in the planning process, in training community members on focus groups and surveys, and in educating each other and community members on specific environment health issues. EJNA partners formed teams with CBO representatives and individuals from ESL communities.

The Committee staffer interviewed 10 EJNA White Center Team members to identify:

- EJNA methods and results.
- Recommendations for other communities doing community environmental health assessment processes.
- How government agencies could work better with community members to address environmental health issues.
- Recommendations for government agency priority setting.

Team members interviewed were from Filipino, Oromo, Samoan, and Somali White Center communities, and their friends and relatives. They had no experience addressing environmental health issues before getting involved in the EJNA project.

EJNA White Center Team Interview Results

Findings: EJNA methods and results

Seattle Public Utilities project leaders shared decision-making, planning, tasks, and responsibilities with the other agency, organization, and community members involved. All partners and team members contributed knowledge, experience, time, and enthusiasm to the project. Team members expanded on existing contacts and knowledge of their communities to identify whom to survey and inform about the project.

EJNA team members used surveys, focus groups, one-on-one discussions, and a youth field trip to University of Washington to identify concerns and needs. They customized surveys for each community based on concerns brought up during focus groups. The project then provided information and resources to address the concerns and needs as much as possible.

The training and surveying process increased the team and community members' awareness about a variety of environmental health issues. The assessment process also increased their concern about and commitment to improving environmental health within their communities. One team member observed improved health outcomes. Members also observed increased social networking and community involvement.

Recommendations: To other communities doing community environmental health assessment

- Everyone needs to work together on environmental health issues to improve our communities.
- People need to come to meetings. It takes time.
- Have food at meetings.

Recommendations: How government agencies could work better with community members to address environmental health issues

- All communities should know about environmental health issues and how to deal with them. Communities need more education.
- Communication methods should include TV shows on general and targeted channels, videos in different languages for use in community groups and churches, radio public service announcements, and film trailers. Have elected leaders and other community leaders do the talking.
- Hold regular workshops and classes to update information and inform more people. Keep coming back to communities – every six months would be good. Information should include what people can do about specific environmental health issues and what they have the right to do in public and multi-family housing.
- Improve recycling and waste disposal systems to make it easier to do the right thing. Consider efficient use of fuel and time, penalties, and education.

Recommendations: To improve government agency priority setting

- Government agencies should survey many different communities to find out the top three priorities and focus on those.

- They should focus on older people, on new arrivals, and on low-income communities, who have fewer resources.
- They should also focus on multi-family housing and on public housing because they have more environmental health problems.

Summary

The EJNA project has been a success due to the focus of EJNA project leaders, partners, and team members on sharing knowledge and decision-making. Project leaders did not assume they knew the best assessment methods for different communities. Instead they focused on developing adaptive partnerships that would be responsive and flexible.

EJNA utilized and expanded existing agency and community resources, knowledge, and capacity. The EJNA process has enabled mutual learning, resource sharing, and candid communication across culture, experience, and environmental health issues.⁴⁴ It fostered true collaboration between and among the core partner group and the community teams. This built capacity, commitment and trust – necessary for sustaining community environmental health assessment projects. It also took time, organization, dedicated agency staffs and community members, funding, and food to sustain the project.

EJNA partners have gone beyond their goals of improving agency and community resources, knowledge, and capacity to address environmental health issues – they have improved social cohesion as well. They have also provided a model for addressing environmental health issues with limited public health agency resources.

Sidebar quotes:

When I first heard about these environmental justice meetings I laughed ... but after thinking about the long run, I realized that everyone needs to work together on environmental health issues to improve our communities. – EJNA White Center Team Member

People need to know what they can do, what they have the right to do. – EJNA White Center Team Member

We often hear that people are tired of being told what to do. They want to be part of the process, to be involved in making decisions, and to receive information on a regular basis. We are the process – they tell us the priorities. They advocate for themselves – we give them the tools. – Marcella Wilson, EJNA, Seattle Public Utilities

Island County Environmental Health Assessment Team

Like other local health jurisdictions, Island County Health Department (ICHD) puts most of its county resources into providing personal health services and assuring compliance with county regulations. Unlike other local health jurisdictions, they have been putting all of their Local Capacity Development Funds into building assessment, community, and policy development capacity.

⁴⁴ *The Environmental Justice Needs Assessment Project 2002-2003 Report*

The Island County Board of Health created a Community Health Advisory Board (CHAB) in 1993 to assess the community's health concerns and needs, prioritize and recommend policy to address those concerns, and to assure that policies attend to the community's needs. Environmental health issues such as drinking water were included in the CHAB's mission, but were not a focus. Environmental health services were still primarily based on a regulatory model of protecting public health. To change this, the ICHD applied for a 3-year Centers for Disease Control and Prevention grant to use *PACE-EH* to develop the health department's and community's ability to collect environmental health data and indicators, analyze issues, set priorities and action plans, implement activities, and evaluate the process and activity outcomes.⁴⁵

ICHD received the grant. In 2002 the Island County Board of Health appointed 21 community members to the Environmental Health Assessment Team (EHAT), selected from 41 applicants to represent diverse viewpoints.⁴⁶ ICHD staffs the EHAT with a project coordinator and an administrative assistant. The ICHD Director, who chaired the NACCHO *PACE-EH* steering committee, and the ICHD Environmental Health Director also provide some staffing for the EHAT.

The Committee staffer interviewed four EHAT members to identify:

- EHAT methods and results.
- Recommendations for other communities doing community environmental health assessment processes.
- How government agencies could work better with community members to address environmental health issues.
- Recommendations for government agency priority setting.

An additional EHAT member emailed his responses.

All five EHAT members had extensive experience addressing environmental health issues. Preserving quality of life, property values, and environmental quality; learning about others' priorities and concerns; and having their own priorities included in decision making processes motivated community members to volunteer for the EHAT.

EHAT Interview Results

Findings: EHAT methods and results

EHAT members interviewed considered the EHAT process and structure as generally successful, so far. The *PACE-EH* process was useful in paring down the list of over a 100 environmental health issues provided by the ICHD. Having a skilled facilitator manage the process, who was also an EHAT member, allowed other members to focus on the issues. The structured process helped discussions and decisions be science-driven, pragmatic, and include everyone's perspectives. Most were happy with the process, although the outcome was not what was expected or desired. One EHAT member felt that scientific information should have been given more consideration.

The EHAT has two members who are liaisons with the Island County Board of Health and five who are also CHAB members. This ensures communication between the

⁴⁵ *Building Environmental Health Services Capacity – Island CHD in State and Local Departments of Public Health*

⁴⁶ <http://www.islandcounty.net/health/EHAT/EHAT-Bylaws.htm>

groups, that efforts are synergistic, and ideas cross-fertilize. EHAT members also communicate with other agencies, community groups, and professional organizations that they are involved in and aware of.

EHAT members had not completed the EHAT project at the time they were interviewed. They had selected and presented the top four priority environmental health issues and were voting on which issues to begin developing action plans for.

Recommendations: To improve community environmental health assessments

- Approach community environmental health assessment from a systems management point of view – of gathering and communicating data and resources.
- Use *PACE-EH* or a similar structured process.
- Have a clear focus on what agencies and community members want to get out of it. Be prepared to accept the answers and needs that arise. Be open.
- Be prepared to devote the time necessary to do the process well – not just six months. The project goes in cycles. You need continuity and commitment from community and agency partners.
- Food is important at community events and meetings. It shows caring and is an icebreaker.
- A good facilitator is important, preferably from the community. Consider hiring a trained facilitator or training someone from the agency or group.
- Most processes have great up-front efforts, but fail to implement their initial work. A transition plan is needed. This isn't part of *PACE-EH*.
- Go to trainings. Find out what other groups have done and what has worked for them.
- Active participation in researching issues, in deliberations, and the entire process is vital. Silent attendance is a waste of time.

Recommendations: How government agencies could work better with community members to address environmental health issues

- Get more scientific information out in a better way to people who aren't experts. Scientific information gets dense and it's difficult to see through to what is relevant. Web sites and brochures are useful, but agencies need to also ask people how to best get information out. Don't waste resources on issues that aren't health risks.
- Listen to people. Keep up outreach efforts – they will bear fruit! Although it takes time and may not be convenient to go to meetings and events, it is appreciated.
- Use community partners to communicate information. Governments are the worst at public involvement. It's the cheapest way to get information out – I'll go back to my community and help get information out to people who don't go to meetings. This works better than any Public Service Announcement, etc. Agencies think they have to do it all – they don't. Strong partners can help get things done.
- Be responsive to people's questions and requests. Be sure people can access the information you send them. Don't assume people have a certain level of technology.

Recommendations: To improve government agency priority setting

- Government agencies should use clear methodologies for identifying priorities and stick to them. This is the only way to justify using resources that are provided by the people. Listen to "the voice of the people." The EHAT was established to provide at least one reasoned and informed voice. Agencies must also lead the people and set long-term goals.

- Use decision criteria such as long-term negative effects, costs, and benefits to determine priorities. The focus should be on “worst first,” based on how bad the impacts are and how many people are affected.
- Governments must make themselves aware of the interests and activities of their constituent communities. When governments’ and communities’ interests and activities don’t coincide, governments should reevaluate their interests and activities with a goal of inclusion rather than exclusion.
- Decision making processes should be open and collaborative, with many strong partners, using broad stakeholder participation processes such as *PACE-EH*. Ask those who show up who else should be involved. If agencies make decisions behind walls they can’t get anything done.
- Commissioners need to be educated so they don’t make decisions based on a vocal minority, that aren’t hazard based, and result in costly operations.

Summary

The EHAT is a useful model for systematically involving community members in a collaborative and transparent priority setting process. It is also an example of how diverse community values and scientific information can be discussed and used to develop meaningful priorities.

The EHAT works because of the structured process, time, funding, a skilled facilitator, food, and dedicated staff and community members. Communications between community members with diverse perspectives, advisory boards, health department staffers, and local board of health members are important for the project to affect the community and for sustainability. Agencies don’t need to do all the work. Community partners are often better positioned to communicate with their peers, influence policy makers, and help address environmental health issues.

Sidebar quotes:

Government agencies should use clear methodologies for identifying priorities and stick to them – this is the only way to justify using resources that are provided by the people.
– EHAT member

People don’t trust the “I’m from the government and I’m here to help” approach – they are skeptical about how much is science driven and how much is political. – EHAT member

EJNA and EHAT Similarities

Both of these community environmental health assessment projects are energy, labor, and resource intensive. Participants in both projects are confident that their actions will result in better informed and healthier communities. Learning scientific information and valuing environmental health also motivate their ongoing participation.

Projects like EJNA and EHAT can only be done well with teams of agency and community members who are committed to building adaptive partnerships. Shared resources and responsibilities, multi-year funding, and dedicated staffs are necessary foundations for these intensive projects.

Mutual respect, trust, shared knowledge and power, and organizational cultures that value diverse perspectives are equally necessary for successful community environmental health assessments. These attitudes and approaches do not require

funding. They require that community members, government agency staffers, and policy makers see each other as allies, not adversaries.

Additional Agency and Community Members Input

An important part of community involvement processes is getting feedback on how well the process is working from different community perspectives. Interviews of two groups of community members involved in community environmental health assessment best practices are described above. The Committee staffer interviewed two additional groups of agency and community members working on environmental health issues to get their input.

Spokane Agency and Community Members Interview Results

An outreach coordinator at the Ecology Eastern Washington Regional Office suggested the Committee staffer interview agency and community members she has worked with on Spokane River clean-up issues. Several participants were funded by Ecology to do public involvement work on Spokane River issues, and were members of a formal advisory committee. Six participated in a group interview and two provided input via email and phone. Participants were from the City of Spokane, Spokane Regional Health Department, Ecology, the Lands Council, PEACH, and the Shawl Society. All eight participants have been personally and/or professionally involved in addressing a variety of environmental health issues for many years. The Committee staffer asked them:

- How they set environmental health priorities.
- Recommendations for government agency priority setting.
- How they involve other agency and community members in their work.
- How government agencies can work better with community members to address environmental health issues.

Findings: Environmental health priority setting

Participants' environmental health priorities were determined by local, state and federal regulations; public perceptions; community values; their own values; political influences; influences from other organizations; likelihood that actions will make a difference; and levels of health risks.

Priorities were not based on a single environmental health issue. Spokane River issues were part of their "bigger pictures." One participant's focus was on the connection between healthy environments and decreased health care costs. Another participant had a multigenerational focus on women, daughters, and youth, with a goal of involving diverse tribal members in culturally relevant environmental health education and advocacy. A third participant's goal was creating a healthier community by educating people about consumer actions, the food supply, and waste streams.

Recommendations: To improve agency environmental health priority setting

- Use scientific information to prioritize issues by human health risk, animal and fish health, and environmental quality. Exposure routes, number of people affected, vulnerability of communities most at risk, equity, and likelihood of actions making a difference should be considered.
- All communities are important.
- Inform the public about processes and actions to avoid inappropriate allocation of funds.

Findings: Involvement of agency and community members

All used their personal knowledge of other individuals and organizations to identify whom to involve in their work. They have used different media and individual communications to publicize meetings and events, and to involve people. Some focused on who is most at risk. Another participant described how her store functions as a community center and draws diverse interested people. She attributed the center's success to a personal and organizational policy of spinning everything from a positive perspective.

Recommendations: How agencies can work better with community members to address environmental health issues

- Take time to identify what the community really wants and what the best communication methods are. Base communication on public needs, be respectful, use a variety of accessible formats, and put information in lay terms. Someone's lack of scientific background should not diminish his or her involvement. Develop reporting mechanisms for who receives information. Get feedback from groups on how well agencies are doing.
- Be patient and go to multiple meetings to develop a degree of trust. Weather the first storm of peoples' anxiety. Often by the third meeting things calm down and you can dialogue. Historically agencies have disallowed input from some communities – community education is needed so these communities feel comfortable carrying issues forward.
- Get public input and question how to get public input. Ecology puts all opportunities for comment in one place on its Web site – this should exist for all agencies. Although this is very useful not everyone has Internet access, so other communication routes are necessary. It's important to work on solutions and to frame discussions from a positive approach in order to involve people. People want to be involved in positive efforts.
- Take leadership on education, on publicizing problems, and on getting information out. Science isn't certain and public health risks and exposures vary. Health agencies should help clarify exposures and health risks. It's difficult for community members to access information, especially if it is not publicized.
- Use eloquence and salesmanship to impassion people about environmental health issues. Explain how the issues affect them. Public health agencies focus on population-based issues and sometimes don't communicate how the issues affect individuals.
- Have regular points of contact between agencies. Have a liaison for large projects that sets up meetings, timelines, etc. Improve internal and external communication. Stop agency turf-wars so they get together to solve problems, without consideration of who gets credit.

Sidebar quote:

No polarization, no villainization, no generalization. We embody our positive policy at the board level and in every subcommittee. Because of this approach we've ended up with a wide range of views and a broad slice of society. – BrightSpirit, PEACH

I track issues and if they are high risk then I get involved. I'm also involved in health care issues – cleaning up our environment and creating a healthy environment can decrease health care costs. - Frank Yuse, Washington Citizen Advisory Committee

Collaborative on Health and the Environment Members and other Advocates' Interview Results

When Committee staff described this project to the Collaborative on Health and the Environment-Northwest (CHE-NW)⁴⁷ several members were interested in being interviewed. Committee staff invited several additional interested environmental health advocates to the CHE-NW group interview. Most of the nine CHE-NW members and three other environmental health advocates interviewed had extensive experience addressing environmental health issues. Two became involved because of indoor air quality issues at their children's schools. One became involved through her role with the Seattle Environmental Justice Needs Assessment project. Other participants were professors of nursing and representatives from the Institute for Environmental Research and Education, City of Seattle Office of Sustainability, Washington State Environmental Health Association, and State Department of Health. The Committee staffer asked the group about:

- How they set environmental health priorities.
- Recommendations for government agency priority setting.
- How they involve other agency and community members in their work.
- How government agencies can work better with community members to address environmental health issues.

Findings: Environmental health priority setting

Participants' priorities were determined by risk assessments of impacts on humans and other organisms, opportunities that arose from a court mandate, legislative mandates, agency authority, funding, grant requirements, problems faced by their children and communities, their clients' priorities, community priorities, politicians, and other staffers.

Recommendations: To improve agency environmental health priority setting

- Use available data, reports, recommendations and additional community input to identify priorities and actions. Track environmental health problems to make sure good science affects policy. Communicate existing information to leaders and policy makers. Get leaders, policy makers, agencies, and affected communities together to determine priorities and how to best address them.
- Follow up on documented environmental health problems and take responsibility for addressing the problems.
- Communicate to the Governor and other leaders if there is a need for additional funding or personnel to address problems. Find other funding sources to address risks.
- Use Life Cycle Assessment to look at environmental health issues holistically, to better understand broader impacts of different issues.⁴⁸
- Go up the chain and focus on priorities that impact different communities, agencies, and organizations and involve everyone. Higher-level initiatives are good examples of this, such as Washington's Persistent Bioaccumulative Toxin strategy⁴⁹ and the precautionary principle.⁵⁰

⁴⁷ For information on CHE Northwest: <http://www.iceh.org>

⁴⁸ For more information on Life Cycle Assessment: www.lcacenter.org

⁴⁹ <http://www.ecy.wa.gov/programs/eap/pbt/pbtfaq.html>

⁵⁰ <http://www.sehn.org/precaution.html>; <http://dieoff.org/page31.htm>;
<http://www.techcentralstation.com/071801D.html>

- Communicate that sound environmental health practices are beneficial for the bottom line and that they're good for business.
- Consider whether or not people have a choice in being exposed to an environmental health risk. People should be able to go to public places, such as schools, without getting sick.
- Use generalists to process information and make decisions, not specialists. Don't make decisions based on a group of people who know more and more about less and less.

Findings: Involvement of agency and community members

Involvement of other community members and agency representatives was often directed by grant requirements, and based on their knowledge of communities and organizations. They networked with other organizations and individuals to identify additional people. One agency developed a method for determining equitable distribution of resources and community characteristics using Geographic Information System mapping.

Recommendations: How agencies can work better with community members to address environmental health issues

- Make information relevant and accessible to community members. Break down information, clarify contradictory information, and frame issues and choices so that people can make their own decisions.
- Consider literacy levels, functional literacy, and language fluency to make information accessible. Crosscheck translations to ensure they make sense to the community you're communicating with. Hire people from the community you're working with to do their own translations. Use different strategies, methods, and media.
- Coordinate messages and materials with other agencies and organizations. Be credible and passionate, make processes as transparent as possible, and be responsive. Build health education and evaluation into environmental health programs and projects – it shouldn't be an add-on at the end.
- Ask different organizations and individuals how and when they would like to be involved. Don't assume you know what their priorities are.
- Focus resources on issues most relevant to the communities and those that the agency can have an impact on. If an agency is unable to address problems raised, bring in agencies or organizations that can, or refer people to other resources.
- Build on existing partnerships and expand existing capacity to address environmental health issues.
- Use non-governmental organizations and community groups to raise awareness through education and media exposure. Use stories about the impact of current environmental health practices to explain why the status quo isn't working and to show how your work benefits others.
- Go to community members and meet with them on their grounds. Prevent professionals from dominating discussions and intimidating community members.
- Provide community members with resources to improve participation.
- Define community. Include small businesses and industry, as well as residents.
- Consider who is involved in decision-making and whom they represent. Consider their resources, needs, cultural norms, ability to address issues, and political influence. In smaller communities people aren't always able to speak out about their concerns – fear, social pressures, and losing their jobs prevent them from speaking out.

- Use available tools to systematically involve community members and gather information, such as *PACE-EH*, or the University of Kansas online community toolbox.⁵¹ Gather qualitative and quantitative information from expert and non-expert sources.

Recommendations: To improve how agencies work together

- Work with other agencies that have regulatory authority to address the issues. Work with agency representatives and community members that have expert and practical knowledge about the issues. Identify your jurisdiction and build relationships with the other organizations.
- Develop integrated approaches with broader mandates that transcend silos, such as the Robert Wood Johnson Turning Point Initiative.

Sidebar Quotes:

I've been involved in a lot of different issues as a disability advocate and lobbyist. When it happens in your own community it's different. – Thelma Simon

School indoor air quality problems at my son's school divided the community. I got involved in addressing the issues. Now our school is a model – the first to have an Integrated Pest Management program. – Maria Mason

There's a difference between expert knowledge and practical knowledge. Someone may not be a plumber but they can tell you where the leak is. We need people who can tell us where the leak is! – Rita Schenk, IERE

We have reports and recommendations, we have WACs and RCWs that are supposed to address and prevent problems, but agencies say they don't have the money, that they don't have the personnel. Why aren't they going to the Governor and telling him about the problems? We need informed leadership. – Maria Mason

With farm workers it's a situation of needing to establish even rudimentary involvement, including providing full information to workers and their families on exposures, health effects, and alternatives. And in order to get there, there needs to be a fundamental shift in mindset of key agencies, so that workers and their families are acknowledged and their health valued. -- Carol Dansereau, Washington Toxics Coalition

Summary

Both groups of agency and community members valued priority setting based on scientific information and broad community input. They expected environmental health agencies to be leaders and to be responsible for identifying and addressing problems. No one agency has all the authority, resources, and expertise necessary to address environmental health problems, however. Agencies should work with community businesses, organizations, and individuals who also have resources and expertise.

Agencies have an important role making scientific information accessible and usable for the public and for policy makers. They should work with other organizations and individuals who are better able to communicate and advocate with the media, communities, and policy makers. More qualitative and quantitative information is needed for sound decision-making. Expert and practical knowledge are needed.

⁵¹ <http://ctb.ku.edu/>

Working with other agencies and community members is vital to identifying, communicating, and solving environmental health problems. Values, norms, and social and economic pressures that affect community involvement vary greatly and are often not obvious. *PACE-EH*, Life Cycle Assessment, the Persistent Bioaccumulative Toxin initiative and the precautionary principle are useful for looking at broader impacts of issues and bringing people together to address environmental health issues.

Eight “Lessons Learned” for advancing the use of data:

1. You have to be in relationships with those who need your data.
2. It is not up to those outside a community to decide what is relevant or meaningful to people inside a community.
3. One size does not fit all.
4. The process is not linear.
5. There is no action without ownership.
6. The task is even larger than one of creating data and tools. It is one of broadly diffusing the data, tools, and skills that communities need.
7. We need to find ways to credential community wisdom both within and beyond that community.
8. And finally, we need to actively address issues of power and within that the role of race, class, culture, and gender.

From Terri Bailey, Piton Foundation, National Neighborhood Indicator Partner
www.urban.org/nnip/pdf/reno_plenary.pdf.

Conclusion and Recommendations

Washington agencies responsible for assuring environmental health face financial, political, and scientific challenges. Data on environmental health exposures and health risks are limited. Agencies are not able to address all environmental health issues. Funding to assess and address environmental health priorities is limited. Little is left over after agencies staff programs required by laws and regulations.

Agencies often have not adequately engaged citizens in understanding and prioritizing public health issues.⁵² Agency and public priorities, expert opinions and public perceptions don't always agree. Environmental health issues can become contentious and divisive, especially when there is uncertainty about health risks, values are threatened, concerns are not addressed, and lack of trust develops.

The Board's Environmental Health Committee focused on community environmental health assessment as a tool for identifying and addressing agency and community priorities. The Committee found two community environmental health assessment projects that involve diverse community members in identifying and addressing environmental health issues and concerns. These projects have raised awareness about environmental health problems and solutions. They have shown that public health agencies can address environmental health issues with limited resources, when other agency and community resources are brought together. They have increased local capacity to address environmental health issues. They have also had broader social and civic impacts: project participants say the projects have improved social networking within their communities.

Most community health assessment processes do not include many environmental health issues or broad-based community involvement. Many agency and community members would like to see government agency environmental health priority setting be more systematic, data-driven, and inclusive. Funding to develop these priority-setting processes is limited, and generally comes from grants.

Efforts are underway to improve information used to inform agencies, communities, and policy makers. Many local and state environmental health agency staffs are dedicated to improving community involvement in their agency's work. Currently they rely on formal and informal processes that are often issue-specific. Communicating often uncertain and incomplete scientific information to the public and policy makers is a challenge. More forums for exchanging expert and practical knowledge and concerns are needed.

Agency and community members interviewed have seen communication, education, and outreach activities prevent crises. They have seen agencies, organizations, and individuals share resources and solve problems. But they also see much room for improvement and provided recommendations on how to improve community involvement and priority setting processes.

⁵² Inside Olympia, July 26, 2004; with Bill Vogler, Washington State Association of Counties and Stan Finkelstein, Association of Washington Cities; www.tvw.org

The Committee used these recommendations and additional discussions to develop eight recommendations to improve community environmental health assessment practice. Some require additional staffing and funding. Others require small or large shifts in agencies' organizational cultures. The recommendations are directed at agencies who the legislature directed the Board to consult with and who most often implement Board environmental health policies: local health jurisdictions, the State Department of Health, and the State Department of Ecology. The recommendations are hopefully also relevant to other agencies and organizations trying to improve how they involve community members in identifying and addressing environmental health issues.

SBOH Environmental Health Committee Recommendations to Improve Community Environmental Health Assessment Practice

The Committee recommends eight ways the Washington State Board of Health, Department of Health, Department of Ecology, local health jurisdictions, and their partners can improve community environmental health assessment practice:

1. Support funding of community environmental health assessment processes. For example, explicitly add community mobilization and qualitative data collection into the Public Health Improvement Plan's cost model for essential public health services.
2. Develop capacity to perform community environmental health assessment, including components such as:
 - Collecting qualitative and quantitative data on environmental factors that impact health;
 - Identifying community values, perspectives, and concerns;
 - Providing culturally and linguistically appropriate environmental education; and
 - Involving and mobilizing community members and organizations.
3. Develop agency and community capacity to address needs identified by community environmental health assessments and action plans.
4. Develop a menu of accessible, relevant, and community driven environmental health indicators, which include a broad spectrum of environmental factors that impact human health.
5. Incorporate environmental factors that impact affect health into existing community health assessment processes and surveys such as the Behavioral Risk Factor Surveillance System Survey.
6. Identify relevant data, tools, expertise, and assistance available for community environmental health assessment processes. Provide information on community environmental health assessment tools, methods, mentors, and best practices through the Assessment in Action AssessNow Web site and other communication channels.
7. Encourage training of agency staffs and community partners in community health assessment processes that integrate environmental health with other public health programs.
8. Request that agency staffs and community members provide feedback on environmental health data and concerns identified by community environmental health assessments to boards of health and other policy makers.

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Appendix A: Acknowledgements

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Tony	Valero	Washington State Department of Ecology
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Karen	VanDusen	University of Washington Environmental Health and Safety
Don	Vesper	Whatcom County Health Department
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Appendix B. Environmental Health Indicators Projects

A common indicator is smoke – it is such a successful indicator that the phrase “where there’s smoke, there’s fire” is now a cliché. Many people use indicators to infer broader knowledge based on observable and sometimes measurable events. Environmental health indicators were developed along traditional environmental health program areas: drinking water, food protection, indoor and outdoor air, and more. An example of an environmental health indicator is the level of microbial water contamination, which indicates the risk for gastrointestinal illness for people drinking that water.

Environmental health indicators summarize the evidence and knowledge on health and environment risk linkages in a meaningful and measurable way for effective monitoring of policies and evaluation of their effects on health. The best indicators are those that reliably predict the relationship between human health and the environment, are routinely collected, and have well accepted definitions and data standards.

International, national, state and local organizations have identified environmental health indicators to better understand connections between environmental hazards, exposures, and health outcomes, and to use the information to improve health status. Indicators are vital for all three core public health functions: assessment, policy development and assurance. Ideally indicators are standardized so that they can be compared to identify trends over time and space. They should also be locally meaningful, however. This is a challenge, especially since meaningful indicators are not stagnant – they evolve to incorporate emerging risks, developing scientific knowledge, and information needs of the people using them and the communities being measured.

International and National Environmental Health Indicators Projects

World Health Organization Regional Office for Europe Indicators

The WHO European Region members are developing an environment and health information system aimed at supporting policy-making in environmental health issues by setting priorities based on evidence, enhancing access to information and by facilitating communication. Their information system cause and effect model enables communication of how each piece of information is related to environmental risks, health effects, and actions. Environmental health indicators and survey methodology publications and other resources are available. (<http://www.who.dk/Ehindicators>)

World Resources Institute Indicators

The World Resources Institute has developed indicators to assess the extent of health risks that people face from environmental threats in different countries. (http://population.wri.org/pubs_content_text.cfm?ContentID=1286)

Environmental Protection Agency Environmental Indicators Initiative

The EPA’s Environmental Indicators Initiative has produced:

- *Draft Report on the Environment 2003* contains environmental exposure and health status indicators. Exposure data includes environmental monitoring, personal monitoring, and biomonitoring. Health outcomes include birth defects and childhood asthma.

- *Draft Technical Document* describes the scientific foundations for the Draft Report on the Environment. It discusses in detail the indicators and data that are currently available, as well as their limitations.
- [National Dialogue Summary Report](http://www.epa.gov/indicators/) describes input the EPA received at public meetings around the country on the above two documents. (<http://www.epa.gov/indicators/>)

Council of State & Territorial Epidemiologists and the Centers for Disease Control Framework and Tools

The Council of State & Territorial Epidemiologists and the Centers for Disease Control and Prevention designed an environmental public health indicators framework to provide a foundation for developing environmental public health tracking and to assist the states in meeting Healthy People 2010 objectives. The framework was designed to allow states the ability to select indicators based on their priorities and needs. It provides sets of indicators, suggested measures, and potential data sources that enable health departments to link environmental hazards, exposures, health effects and interventions. (www.cdc.gov/nceh/indicators and www.cdc.gov/nceh/tracking)

Life Cycle Assessment

Life Cycle Assessment combines many environmental tools together: systems analysis, input-output analysis, risk assessment, and environmental impact assessment. Impact Assessment takes inventory data and converts it to indicators for each impact category. The technique reports all results in terms of the functional unit and in this way it directly links the market for goods and services to environmental improvement. (www.lcacenter.org)

Healthy People 2010

Healthy People 2010 identified 10 Leading Health Indicators with one or more objectives from Healthy People 2010 associated with it. As a group, the Leading Health Indicators reflect the major health concerns in the United States at the beginning of the 21st century. The Leading Health Indicators were selected on the basis of their ability to motivate action, the availability of data to measure progress, and their importance as public health issues. The Leading Health Indicators include environmental quality and tobacco use. (<http://www.healthypeople.gov/LHI/lhiwhat.htm>)

Association for Community Health Improvement

The Association for Community Health Improvement web site links to a variety of community, social, health, sustainable development and neighborhood indicator projects. (http://www.communityhlth.org/communityhlth/resources/indicators_data.html)

Washington State Health Indicators Projects

As part of the Priorities of Government assessment that preceded Governor Locke's 2003-05 budget recommendation, Washington state agency staff teams were asked to develop indicators for ten statewide results identified in the process. Food and drinking water safety and hygiene were "health" indicators, and river and stream water quality were "natural resource" indicators. These indicators were designed to help measure progress in achieving the desired results. (<http://www.ofm.wa.gov/fiscal/pog/index.htm>)

The DOH Public Health Improvement Plan Key Health Indicators Steering Committee is developing a Report Card on Washington's Health that uses several indicators to give a general picture of our overall health and to stimulate thinking about the underlying issues that affect our health. They are also finalizing a Key Health Indicators Action Guide so partners throughout the public health system can adopt and use health indicators in community planning (<http://www.doh.wa.gov/PHIP/Indicators/default.htm>).

DOH publishes *The Health of Washington State*, a compilation of health indicators that can be used to understand specific health problems and current interventions. DOH management and program staffs decided which topics to include based on their judgments of which were "hot topics," along with topics that DOH programs addressed and had indicators [The Health of Washington State](http://www.doh.wa.gov/HWS/) (<http://www.doh.wa.gov/HWS/>).

In 1993 DOH received funding for the Washington State Environmental Health Data Assessment Project. Thurston and Island counties conducted pilot community environmental health assessments using the APEXPH model. The project resulted in an extensive data set that compared state data with data from Island and Thurston counties. The data included health status and environmental exposure indicators for air quality, drinking water, food quality, hazardous substances, housing, unintentional injuries, institutional health, land use, liquid waste, environmental noise, occupational health, radiation, recreational water, solid waste, tobacco use, and vector/zoonotic health.

Washington's local health jurisdictions' Environmental Health Directors approved a list of environmental health indicators for pilot testing in 1997 (see Appendix C). A "process for development and modification of state-wide environmental health indicators" included input from other agencies, such as Ecology, Agriculture, Labor & Industries, Puget Sound Water Quality Authority, DOH, EPA, and "other." The plan was for LHJs to forward data to DOH for analysis and report preparation.

Local Environmental Health Indicators Projects

The Island County Health Department Community Health Advisory Board (CHAB) has a Health Indicators Evaluation Task Force that reviews and uses health data for presentations to the community, to track and prioritize issues, and to make policy recommendations to the Island County Board of Health. It also uses the data to help mobilize the community to address health issues. (<http://www.pioneernet.net/chab/committe.htm#Task>)

Early CHAB reports included environmental health issues such as drinking water and tobacco use. *The Health of Island County 2003: Findings, Priorities, and Emerging Issues* has a 39-page section on environmental health, including a discussion of environmental health indicators. (<http://www.islandcounty.net/health/Report/>)

The Spokane Regional Health District published *Spokane Counts* in 2003. The report identified 48 key measures of health (called indicators), highlighted emerging health issues, identified differences between populations and compared Spokane County to the state and nation. It measured areas that can be impacted by public health with our

community partners. The report has an environmental health section with food, water borne, zoonotic and vector borne disease reports as indicators. It also documented use of the MAPP process, discussed how and why indicators were chosen, and described the erosion of local public health capacity.

<http://srhd.org/information/pubs/pdf/reports/SpokaneCounts.pdf>.

Spokane Regional Health District community assessment staff is also working with environmental health staffs to develop improved environmental health indicators.

Tacoma-Pierce County Health Department developed a strategic plan that included creating an environmental health data gathering and surveillance system. The department's goal is to be able to connect data sets, identify trends, and systematically identify problems and priorities. They applied for CDC funding, but didn't receive it. At the request of the environmental health department, the TPCHD director approved funding an environmental health assessment position. This staff is currently working with other environmental health and community assessment staffs to understand existing data systems and needs. Her goal is to develop a sustainable data system that staff can easily use and that meets staff, policy makers, and community needs, so all can make informed decisions about their work and priorities.

The South Puget Sound Sustainable Community Roundtable has a [Millenium Project](#) to reevaluate and update their indicators. The Roundtable is planning to reevaluate all of its indicators in the next few years, building on past reports towards a new *State of the Community* report for the 21st century. The reports have sections on health and on environmental quality.

<http://www.olywa.net/roundtable/projects.html#millenium>

Other State Health Indicators Projects

California State Environmental Health Investigation Branch Indicators Report

The California Environmental Health Indicators Report reviews current status, historical trends, and the geographic distribution of 18 indicators of environmental health for the State. The topic areas examined include Socio-demographic factors; Air Quality; Pesticides, Water Quality; Solid Waste/Toxics; Human Health; and the California/Baja California Border Region.

http://www.ehib.org/cma/paper.jsp?paper_key=HEALTH_INDICATORS

Appendix C: Washington Environmental Health Statewide Indicators

Food Indicators

1. Rates, expressed in cases/100,000 of confirmed foodborne illness.
2. Rates, expressed in number of establishments/total number of establishments, where red item violations over 35 or three high risk items are identified through a routine inspections.
3. Raw numbers of complaints received/per year/per 100,000 population.

Wastewater

1. Rates, expressed in cases/100,000 of confirmed sewage related illness.
2. Raw numbers of complaints received/per year/per 100,000 population.

Vector

1. Rates, expressed in cases/100,000 of confirmed vector borne illness.
2. Raw number of complaints received/per year/per 100,000 population.

Water Recreation

1. Rates, expressed in cases/100,000 of drowning and near drowning. Would include both natural and artificial water bodies.
2. Rates, expressed as cases/100,000 of all other injury and disease related to natural or artificial water bodies.
3. Raw number of complaints received/per year/per 100,000 population.

Drinking Water

1. Raw number of water quality complaints/per year/per 100,000 population.
2. Percentage of population served by routinely tested water supply.
3. Percentage of total population served by water supplies with optimal levels of fluoride.
4. Population served by systems in compliance with standards for bacteriological water quality monitoring frequency.
5. Population served by systems in compliance with standards for chemical water quality monitoring frequency.
6. Population served by systems in compliance with bacteriological quality standards.
7. Population served by systems in compliance with chemical quality standards.

8. Population served by Group A water systems with vulnerable primary sources of drinking water, per DOH waiver request analysis.